# SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

## AIR POLLUTION CONTROL REGULATIONS AND STANDARDS

## REGULATION 61-62.5 AIR POLLUTION CONTROL STANDARDS

# STANDARD NO. 7.1 NONATTAINMENT NEW SOURCE REVIEW (NSR)

# (a) Applicability

- (1) This rule applies to all major stationary sources constructed or modified in any nonattainment area as designated in 40 CFR 81.341 ("nonattainment area") if the emissions from such facility will cause or contribute to concentrations of a regulated NSR pollutant (as defined in paragraph (c)(13)) for which the nonattainment area was designated as nonattainment. Applicability to this regulation shall be based on the pollutant emission rate set out in paragraph (c)(14) for only those pollutants for which the area's designation is based.
- (A) The requirements of paragraph (d) apply to the construction of any new major stationary source or the major modification of any existing major stationary source, except as provided in paragraph (b).
- (B) No new major stationary source or major modification to which the requirements of paragraph (d) apply shall begin actual construction without a permit that states that the major stationary source or major modification will meet those requirements. The Department has authority to issue any such permit.
- (2) **Redesignation to attainment**. If any nonattainment area to which this regulation applies is later designated in 40 CFR 81.341 as attainment, all sources in that nonattainment area subject to this regulation before the redesignation date shall continue to comply with this regulation.
- (3) For any area designated as nonattainment a major stationary source or major modification that is major for volatile organic compounds or oxides of nitrogen is also major for ozone.

# (b) Applicability procedures.

- (1) Except as otherwise provided in paragraphs (b)(7) and (8), and consistent with the definition of major modification contained in paragraph (c)(6)(A), a project is a major modification for a regulated NSR pollutant if it causes two types of emissions increases a significant emissions increase (as defined in paragraph (c)(15), and a significant net emissions increase (as defined in paragraphs (c)(8) and (15). The project is not a major modification if it does not cause a significant emissions increase. If the project causes a significant emissions increase, then the project is a major modification only if it also results in a significant net emissions increase.
- (2) The procedure for calculating (before beginning actual construction) whether a significant emissions increase (*i.e.*, the first step of the process) will occur depends upon the type of emissions units being modified, according to paragraphs (b)(1) through (6). The procedure for calculating (before beginning actual construction) whether a significant net emissions increase

will occur at the major stationary source (*i.e.*, the second step of the process) is contained in the definition in paragraph (c)(8). Regardless of any such preconstruction projections, a major modification results if the project causes a significant emissions increase and a significant net emissions increase.

- (3) Actual-to-projected-actual applicability test for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions (as defined in paragraph (c)(11)) and the baseline actual emissions (as defined in paragraphs (c)(2)(A) and (B), as applicable), for each existing emissions unit, equals or exceeds the significant amount for that pollutant (as defined in paragraph (c)(14)).
- (4) Actual-to-potential test for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit (as defined in paragraph (b)(37) of Regulation 61-62.5 Standard 7, "Prevention of Significant Deterioration" ("Standard 7")) from each new emissions unit following completion of the project and the baseline actual emissions (as defined in paragraph (c)(2)(C)) of these units before the project equals or exceeds the significant amount for that pollutant (as defined in paragraph (c)(14)).
- (5) Emission test for projects that involve Clean Units. For a project that will be constructed and operated at a Clean Unit without causing the emissions unit to lose its Clean Unit designation, no emissions increase is deemed to occur.
- (6) Hybrid test for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in paragraphs (b)(3) through (5) as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant (as defined in paragraph (c)(14)). For example, if a project involves both an existing emissions unit and a Clean Unit, the projected increase is determined by summing the values determined using the method specified in paragraph (b)(3) for the existing unit and using the method specified in paragraph (b)(5) for the Clean Unit.
- (7) For any major stationary source for a Plantwide Applicability Limitation (PAL) for a regulated NSR pollutant, the major stationary source shall comply with requirements under paragraph (i).
- (8) An owner or operator undertaking a Pollution Control Project (PCP) (as defined in paragraph (c)(10)) shall comply with the requirements under paragraph (h).
- (c) **Definitions.** The following definitions apply to this Standard only. Any other term contained within this Standard is as defined where indicated in Regulation 61-62.5, Standard 7, "*Prevention of Significant Deterioration*."
- (1)(A) "Actual emissions" means the actual rate of emissions of a regulated NSR pollutant from an emissions unit, as determined in accordance with paragraphs (c)(1)(B) through (D), except that this definition shall not apply for calculating whether a significant emissions increase has occurred, or for establishing a PAL under paragraph (i). Instead, paragraphs (c)(2) and (c)(11) shall apply for those purposes.
  - (B) In general, actual emissions as of a particular date shall equal the average rate, in tons

per year, at which the unit actually emitted the pollutant during a consecutive 24-month period which precedes the particular date and which is representative of normal source operation. The Department shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.

- (C) The Department may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.
- (D) For any emissions unit that has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.
- (2) "Baseline actual emissions" means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with paragraphs (c)(2)(A) through (D).
- (A) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The Department shall allow the use of a different time period upon a determination that it is more representative of normal source operation.
- (i) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, and shutdowns.
- (ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.
- (iii) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.
- (iv) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraph (c)(2)(A)(ii).
- (B) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Department for a permit required either under this section or under a plan approved by the Administrator whichever is earlier, except that the 10-year period shall not include any period earlier than November 15, 1990. The Department reserves the right to determine if the 24-month period selected is appropriate.
- (i) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups and shutdowns.

- (ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.
- (iii) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major stationary source must currently comply, had such major stationary source been required to comply with such limitations during the consecutive 24-month period. However, if an emission limitation is part of a maximum achievable control technology standard that the Administrator proposed or promulgated under 40 CFR 63, the baseline actual emissions need only be adjusted if the State has taken credit for such emissions reductions in an attainment demonstration or maintenance plan consistent with the requirements of paragraph (d)(1)(c)(viii).
- (iv) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.
- (v) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by paragraphs (c)(2)(B)(ii) and (iii).
- (C) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the initial construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.
- (D) For a PAL for a major stationary source, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in paragraph (c)(2)(A), for other existing emissions units in accordance with the procedures contained in paragraph (c)(2)(B), and for a new emissions unit in accordance with the procedures contained in paragraph (c)(2)(C).
- (3) "Best available control technology (BACT)" means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the Department, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR 60 or 61. If the Department determines that technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reduction achievable by implementation of such design, equipment, work practice or operation, and shall provide for compliance by means which achieve equivalent results.
  - (4) "Clean Unit" means any emissions unit that has been issued a major NSR permit that

requires compliance with BACT or LAER, that is complying with such BACT/LAER requirements, and qualifies as a Clean Unit in accordance with paragraph (f); or any emissions unit that has been designated by the Department as a Clean Unit, based on the criteria in paragraphs (g)(3)(i) through (iv).

- (5) "Lowest achievable emission rate (LAER)" means, for any source, the more stringent rate of emissions based on the following:
- (A) The most stringent emissions limitation which is contained in the implementation plan of any State for such class or category of stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
- (B) The most stringent emissions limitation which is achieved in practice by such class or category of stationary sources. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within a stationary source. In no event shall the application of the term permit a proposed new or modified stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.
- (6)(A) "Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in:
- (i) A significant emissions increase of a regulated NSR pollutant (as defined in paragraph (c)(13)); and
- (ii) A significant net emissions increase of that pollutant from the major stationary source.
- (B) Any significant emissions increase (as defined in paragraph (c)(15)) from any emissions units or net emissions increase (as defined in paragraph (c)(8)) at a major stationary source that is significant for volatile organic compounds or oxides of nitrogen shall be considered significant for ozone.
  - (C) A physical change or change in the method of operation shall not include:
    - (i) Routine maintenance, repair and replacement;
- (ii) Use of an alternative fuel or raw material by reason of an order under sections 2(a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act:
- (iii) Use of an alternative fuel by reason of an order or rule section 125 of the Clean Air Act;
- (iv) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;
  - (v) Use of an alternative fuel or raw material by a stationary source which;
    - (a) The source was capable of accommodating before December 21,

1976, unless such change would be prohibited under any federally enforceable permit condition which was established after December 12, 1976, or

- (b) The source is approved to use under any permit issued under regulations approved pursuant to this section;
- (vi) An increase in the hours of operation or in the production rate, unless such change is prohibited under any federally enforceable permit condition which was established after December 21, 1976.
  - (vii) Any change in ownership at a stationary source.
- (viii) The addition, replacement, or use of a PCP, as defined in paragraph (c)(10), at an existing emissions unit meeting the requirements of paragraph (h). A replacement control technology must provide more effective emissions control than that of the replaced control technology to qualify for this exclusion.
- (ix) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project, provided that the project complies with:
  - (a) The South Carolina State Implementation Plan, and
- (b) Other requirements necessary to attain and maintain the national ambient air quality standard during the project and after it is terminated.
- (D) This definition shall not apply with respect to a particular regulated NSR pollutant when the major stationary source is complying with the requirements under paragraph (i) for a PAL for that pollutant. Instead, the definition at paragraph (i)(2)(viii) shall apply.

# (7)(A) "Major stationary source" means:

- (i) Any stationary source of air pollutants which emits, or has the potential to emit 100 tons per year or more of any regulated NSR pollutant, or
- (ii) Any physical change that would occur at a stationary source not qualifying under paragraph (c)(7)(A)(i) as a major stationary source, if the change would constitute a major stationary source by itself.
- (B) A major stationary source that is major for volatile organic compounds or oxides of nitrogen shall be considered major for ozone.
- (C) The fugitive emissions of a stationary source shall not be included in determining for any of the purposes of this paragraph whether it is a major stationary source, unless the source belongs to one of the following categories of stationary sources:
  - (i) Coal cleaning plants (with thermal dryers);
  - (ii) Kraft pulp mills;
  - (iii) Portland cement plants;

(iv) Primary zinc smelters; (v) Iron and steel mills; (vi) Primary aluminum ore reduction plants; (vii) Primary copper smelters; (viii) Municipal incinerators capable of charging more than 250 tons of refuse per day; (ix) Hydrofluoric, sulfuric, or nitric acid plants; (x) Petroleum refineries; (xi) Lime plants; (xii) Phosphate rock processing plants; (xiii) Coke oven batteries; (xiv) Sulfur recovery plants; (xv) Carbon black plants (furnace process); (xvi) Primary lead smelters; (xvii) Fuel conversion plants; (xviii) Sintering plants; (xix) Secondary metal production plants; (xx) Chemical process plants; (xxi) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input; (xxii) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels; (xxiii) Taconite ore processing plants; (xxiv) Glass fiber processing plants; (xxv) Charcoal production plants; (xxvi) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; and

(xxvii) Any other stationary source category which, as of August 7, 1980, is

being regulated under section 111 or 112 of the Clean Air Act.

- (8)(A) "Net emissions increase" means, with respect to any regulated NSR pollutant emitted by a major stationary source, the amount by which the sum of the following exceeds zero:
- (i) The increase in emissions from a particular physical change or change in the method of operation at a stationary source as calculated pursuant to paragraph (b); and
- (ii) Any other increases and decreases in actual emissions at the major stationary source that are contemporaneous with the particular change and are otherwise creditable. Baseline actual emissions for calculating increases and decreases under this paragraph (c)(8)(A)(ii) shall be determined as provided in paragraph (c)(2), except that paragraphs (c)(2)(A)(iii) and (c)(2)(B)(iv) shall not apply.
- (B) An increase or decrease in actual emissions is contemporaneous with the increase from the particular change only if it occurs before the date that the increase from the particular change occurs;
  - (C) An increase or decrease in actual emissions is creditable only if:
- (i) It occurs within five years before construction on the particular change commences; and
- (ii) The Department has not relied on it in issuing a permit for the source, which permit is in effect when the increase in actual emissions from the particular change occurs; and
- (iii) The increase or decrease in emissions did not occur at a Clean Unit, except as provided in paragraphs (f)(8) and (g)(10).
- (D) An increase in actual emissions is creditable only to the extent that the new level of actual emissions exceeds the old level.
  - (E) A decrease in actual emissions is creditable only to the extent that:
- (i) The old level of actual emission or the old level of allowable emissions whichever is lower, exceeds the new level of actual emissions;
- (ii) It is enforceable as a practical matter at and after the time that actual construction on the particular change begins; and
- (iii) The Department has not relied on it in issuing any permit or the Department has not relied on it in demonstrating attainment or reasonable further progress;
- (iv) It has approximately the same qualitative significance for public health and welfare as that attributed to the increase from the particular change; and
- (v) The decrease in actual emissions did not result from the installation of add-on control technology or application of pollution prevention practices that were relied on in designating an emissions unit as a Clean Unit pursuant to paragraph (g). That is, once an emissions unit has been designated as a Clean Unit, the owner or operator cannot later use the emissions reduction from the air pollution control measures that the Clean Unit designation is

based on in calculating the net emissions increase for another emissions unit (i.e., must not use that reduction in a "netting analysis" for another emissions unit). However, any new emissions reductions that were not relied upon in a PCP excluded pursuant to paragraph (h) or for a Clean Unit designation are creditable to the extent they meet the requirements in paragraphs (h)(6)(iv) for the PCP and paragraphs (f)(8) or (g)(10) for a Clean Unit.

- (F) An increase that results from a physical change at a source occurs when the emissions unit on which construction occurred becomes operational and begins to emit a particular pollutant. Any replacement unit that requires shakedown becomes operational only after a reasonable shakedown period, not to exceed 180 days.
- (G) Paragraph (c)(1)(B) shall not apply for determining creditable increases and decreases or after a change.
- (9) "Nonattainment major new source review (NSR) program" means a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of this regulation, or a program that implements 40 CFR 51, appendix S, Sections I through VI. Any permit issued under such a program is a major NSR permit.
- (10) "Pollution control project (PCP)" means any activity, set of work practices or project (including pollution prevention as defined under paragraph (b)(36) of Standard 7) undertaken at an existing emissions unit that reduces emissions of air pollutants from such unit. Such qualifying activities or projects can include the replacement or upgrade of an existing emissions control technology with a more effective unit. Other changes that may occur at the source are not considered part of the PCP if they are not necessary to reduce emissions through the PCP. Projects listed in (c)(10)(A) through (F) are presumed to be environmentally beneficial pursuant to paragraph (h)(2)(i). Projects not listed in these paragraphs may qualify for a case-specific PCP exclusion pursuant to the requirements of paragraphs (h)(2) and (h)(5).
- (A) Conventional or advanced flue gas desulfurization or sorbent injection for control of  $SO_2$ .
- (B) Electrostatic precipitators, baghouses, high efficiency multiclones, or scrubbers for control of particulate matter or other pollutants.
- (C) Flue gas recirculation, low- $NO_X$  burners or combustors, selective non-catalytic reduction, selective catalytic reduction, low emission combustion (for Internal Combustion engines), and oxidation/absorption catalyst for control of  $NO_X$ .
- (D) Regenerative thermal oxidizers, catalytic oxidizers, condensers, thermal incinerators, hydrocarbon combustion flares, biofiltration, absorbers and adsorbers, and floating roofs for storage vessels for control of volatile organic compounds or hazardous air pollutants. For the purpose of this regulation, "hydrocarbon combustion flare" means either a flare used to comply with an applicable NSPS or MACT standard (including uses of flares during startup, shutdown, or malfunction permitted under such a standard), or a flare that serves to control emissions of waste streams comprised predominately of hydrocarbons and containing no more than 230 mg/dscm hydrogen sulfide.
- (E) Activities or projects undertaken to accommodate switching (or partially switching) to an inherently less polluting fuel, to be limited to the following fuel switches:

- (i) Switching from a heavier grade of fuel oil to a lighter fuel oil, or any grade of oil to 0.05 percent sulfur diesel (i.e., from a higher sulfur content #2 fuel or from #6 fuel, to CA 0.05 percent sulfur #2 diesel);
- (ii) Switching from coal, oil, or any solid fuel to natural gas, propane, or gasified coal;
- (iii) Switching from coal to wood, excluding construction or demolition waste, chemical or pesticide treated wood, and other forms of "unclean" wood;
  - (iv) Switching from coal to #2 fuel oil (0.5 percent maximum sulfur content); and
- (v) Switching from high sulfur coal to low sulfur coal (maximum 1.2 percent sulfur content).
- (F) Activities or projects undertaken to accommodate switching from the use of one ozone depleting substance (ODS) to the use of a substance with a lower or zero ozone depletion potential (ODP), including changes to equipment needed to accommodate the activity or project, that meet the requirements of paragraphs (c)(10)(F)(i) and (ii).
- (i) The productive capacity of the equipment is not increased as a result of the activity or project.
- (ii) The projected usage of the new substance is lower, on an ODP-weighted basis, than the baseline usage of the replaced ODS. To make this determination, follow the procedure in paragraphs (c)(10)(F)(ii)(a) through (d).
- (a) Determine the ODP of the substances by consulting 40 CFR part 82, subpart A, appendices A and B.
- (b) Calculate the replaced ODP-weighted amount by multiplying the baseline actual usage (using the annualized average of any 24 consecutive months of usage within the past 10 years) by the ODP of the replaced ODS.
- (c) Calculate the projected ODP-weighted amount by multiplying the projected future annual usage of the new substance by its ODP.
- (d) If the value calculated in paragraph (c)(10)(F)(ii)(b) is more than the value calculated in paragraph (c)(10)(F)(ii)(c), then the projected use of the new substance is lower, on an ODP-weighted basis, than the baseline usage of the replaced ODS.
- (11)(A) "Projected actual emissions" means, the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit of that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source.
  - (B) In determining the projected actual emissions under paragraph (c)(11)(A) before

beginning actual construction, the owner or operator of the major stationary source:

- (i) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and compliance plans under the approved plan; and
- (ii) Shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, and shutdowns; and
- (iii) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions under paragraph (c)(2) and that are also unrelated to the particular project, including any increased utilization due to product demand growth; or,
- (iv) In lieu of using the method set out in paragraphs (c)(11)(B)(i) through (iii) may elect to use the emissions unit's potential to emit, in tons per year, as defined under paragraph (b)(37) of Standard 7.
- (12) "Prevention of Significant Deterioration (PSD) permit" means any permit that is issued under a major source preconstruction permit program that has been approved by the Administrator and incorporated into the plan to implement the requirements of 40 CFR 51.166, or under the program in 40 CFR 52.21.
  - (13) "Regulated NSR pollutant," for purposes, means the following:
    - (A) Oxides of nitrogen or any volatile organic compounds;
- (B) Any pollutant for which a national ambient air quality standard has been promulgated; or
- (C) Any pollutant that is a constituent or precursor of a general pollutant listed under paragraphs (c)(13)(A) or (B), provided that a constituent or precursor pollutant may only be regulated under NSR as part of regulation of the general pollutant.
- (14) "**Significant**" means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, as rate of emissions that would equal or exceed any of the following rates:

Pollutant Emission Rate

Carbon monoxide: 100 tons per year (tpy)

Nitrogen oxides: 40 tpy

Particulate matter:

15 tpy of  $PM_{10}$  emissions

Sulfur dioxide: 40 tpy

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Ozone: 40 tpy of volatile organic compounds or oxides of nitrogen

Lead: 0.6 tpy

- (15) "Significant emissions increase" means, for a regulated NSR pollutant, an increase in emissions that is significant (as defined in paragraph (c)(14)) for that pollutant.
- (16) "Volatile organic compounds (VOC)" is as defined in Regulation 61-62.1, Section I, *Definitions*.

# (d) Permitting requirements

- (1) **Conditions for approval**. If the Department finds that the major stationary source or major modification would be constructed in an area designated in 40 CFR 81.341 as nonattainment for a pollutant for which the stationary source or modification is major, approval may be granted only if the following conditions are met:
- (A) The major stationary source or major modification is required to meet an emission limitation which specifies the lowest achievable emission rate (LAER) for such source.
- (B) The applicant must certify that all existing major sources owned or operated by the applicant (or any entity controlling, controlled by, or under common control with the applicant) in the same State as the proposed source are in compliance with all applicable emission limitations and standards under the Clean Air Act (or are in compliance with an expeditious schedule which is Federally enforceable or contained in a court decree).
- (C) The owner or operator of the proposed new major stationary source or major modification will obtain sufficient emission reductions of the nonattainment pollutant from other sources. Emission reductions shall be in effect and enforceable prior to the date the new source or modification commences operation. The emission reductions shall be obtained in accordance with the following provisions:
- (i) Where the permitted emissions limit allows greater emissions than the potential to emit of the source, emissions offset credit will be allowed only for control below this potential;
- (ii) For an existing fuel combustion source, credit shall be based on the allowable emissions for the type of fuel being burned at the time the application to construct is filed. If the existing source commits to switch to a cleaner fuel at some future date, emissions offset credit based on the allowable (or actual) emissions for the fuels involved is not acceptable, unless the permit is conditioned to require the use of a specified alternative control measure which would achieve the same degree of emissions reduction should the source switch back to a dirtier fuel at some later date.
- (iii)(a) Emissions reductions achieved by shutting down an existing source or curtailing production or operating hours below baseline levels may be generally credited if such reductions are permanent, quantifiable, federally enforceable, occurred on or after the date of the most recent emissions inventory, and if the area has an EPA-approved attainment plan.
  - (b) Such reductions may be credited if the shutdown or curtailment

occurred on or after the date the new source permit application is filed, or, if the applicant can establish that the proposed new source is a replacement for the shutdown or curtailed source, and the cutoff date provision of paragraph (d)(C)(iii)(a) are observed.

- (iv) No emissions credit may be allowed for replacing one hydrocarbon compound with another of lesser reactivity, except for those compounds listed in Table 1 of EPA's "Recommended Policy on Control of Volatile Organic Compounds" (42 FR 35314, July 8, 1977):
- (v) All emission reductions claimed as offset credit shall be federally enforceable;
- (vi) **Location of offsetting emissions.** Emission offsets shall be obtained from sources currently operating within the same designated nonattainment area as the new or modified stationary source. Emission offsets may be obtained from another nonattainment area with the Department's approval only if (a) the other area has an equal or higher nonattainment classification then the area in which the proposed source is located and (b) emissions from the other area contribute to a violation of the NAAQS in the nonattainment area in which the source is located.
- (vii) **Emission offsetting ratios**. Emission offsets shall be required in nonattainment areas in accordance with the following provisions:
- (a) Emissions for carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead (Pb), particulate matter ( $PM_{10}$  and  $PM_{2.5}$ ) nonattainment areas shall be offset at a ratio greater than one to one.
- (b) Emissions for ozone nonattainment areas shall be offset for volatile organic compounds (VOCs) and nitrogen oxides (NO $_x$ ) in accordance with the following table:

Designation	Offset ratios
Subpart I	>1 to 1
Marginal	1.1 to 1
Moderate	1.15 to 1
Serious	1.2 to 1
Severe	1.3 to 1
Extreme	1.5 to 1

- (viii) Credit for an emissions reduction can be claimed to the extent that the Department has not relied on it in issuing any permit under regulations approved pursuant to 40 CFR part 51 subpart I or the Department has not relied on it in demonstrating attainment or reasonable further progress.
- (ix) Decreases in actual emissions resulting from the installation of add-on control technology or application of pollution prevention measures that were relied upon in designating an emissions unit as a Clean Unit or a project as a PCP cannot be used as offsets.
- (x) Decreases in actual emissions occurring at a Clean Unit cannot be used as offsets, except as provided in paragraphs (f)(8) and (g)(10) of this regulation. Similarly, decreases

in actual emissions occurring at a PCP cannot be used as offsets, except as provided in paragraph (h)(6)(iv) of this regulation.

- (xi) The total tonnage of increased emissions, in tons per year, resulting from a major modification that must be offset in accordance with section 173 of the Clean Air Act shall be determined by summing the difference between the allowable emissions after the modification (as defined by paragraph (b)(3) of Standard 7) and the actual emissions before the modification (as defined in paragraph (c)(1)) for each emissions unit.
- (D) The emission offsets must provide a positive net air quality benefit in the affected area as determined by 40 CFR 51, Appendix S, *Emission Offset Interpretative Ruling*.
- (E) Alternative Sites Analysis. An analysis of alternative sites, sizes, production processes, and environmental control techniques for such proposed source demonstrates that benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification shall be required.
- (2) (A) Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section or with the terms of any approval to construct, or any owner or operator of a source or modification subject to this section who commences construction after the effective date of these regulations without applying for and receiving approval hereunder, shall be subject to appropriate enforcement action.
- (B) Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date.
- (C) Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the plan and any other requirements under local, State or Federal law.
- (D) At such time that a particular source or modification becomes a major stationary source or major modification solely by virtue of a relaxation in any enforcement limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of regulations approved pursuant to this section shall apply to the source or modification as though construction had not yet commenced on the source or modification;
- (3) The following provisions apply to projects at existing emissions units at a major stationary source (other than projects at a Clean Unit or at a source with a PAL) in circumstances where there is a reasonable possibility that a project that is not a part of a major modification may result in a significant emissions increase and the owner or operator elects to use the method specified in paragraphs (c)(11)(B)(i) through (iii) for calculating projected actual emissions.
- (A) If the project requires construction permitting under Regulation 61-62.1, Section II "Permit Requirements," the owner or operator shall provide a copy of the information set out in paragraph (d)(3)(B) as part of the permit application to the Department. If construction permitting

under Regulation 61-62.1, Section II "Permit Requirements" is not required, the owner or operator shall maintain the information set out in paragraph (d)(3).

- (B) Before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:
  - (i) A description of the project;
- (ii) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and
- (iii) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under paragraph (c)(11)(B)(iii) and an explanation for why such amount was excluded, and any netting calculations, if applicable.
- (C) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions units identified in paragraph (d)(3)(B)(ii); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.
- (D) If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the Department within 60 days after the end of each year during which records must be generated under paragraph (d)(3)(B) setting out the unit's annual emissions during the year that preceded submission of the report.
- (E) If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the Department if the annual emissions, in tons per year, from the project identified in paragraph (d)(3)(B), exceed the baseline actual emissions (as documented and maintained pursuant to paragraph (d)(3)(B)(iii)), by a significant amount (as defined in paragraph (c)(14)) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to paragraph (d)(3)(B)(iii). Such report shall be submitted to the Department within 60 days after the end of such year. The report shall contain the following:
  - (i) The name, address and telephone number of the major stationary source;
  - (ii) The annual emissions as calculated pursuant to paragraph (d)(3)(C); and
- (iii) Any other information needed for to make a compliance determination (e.g., an explanation as to why the emissions differ from the preconstruction projection).
- (4) If a Clean Unit modification project or a project at a source with a PAL requires construction permitting under Regulation 61-62.1, Section II, "*Permit Requirements*," the owner or operator shall provide notification of source status as part of the permit application to the Department.

- (5) The owner or operator of the source shall make the information required to be documented and maintained pursuant to paragraph (d)(3) for review upon a request for inspection by the Department or the general public pursuant to the requirements contained in 40 CFR 70.4(b)(3)(viii).
- (6) Public Participation. Within 30 days after receipt of an application to construct, or any addition to such application, the Department shall advise the applicant of any deficiency in the application or in the information submitted and transmit a copy of such application to EPA. In the event of such a deficiency, the date of receipt of the application shall be, for the purpose of this regulation, the date on which the Department received all required information.
- (7) In accordance with Regulation 61-30, *Environmental Protection Fees*, the Department shall make a final determination on the application. This involves performing the following actions in a timely manner:
- (i) For the purposes of this paragraph (d)(7), the time frame for making a final determination shall be consistent with R. 61-30, *Environmental Protection Fees*, paragraph (H)(2)(c)(iii).
- (ii) Make a preliminary determination whether construction should be approved, approved with conditions, or disapproved.
- (iii) Make available in at least one location in each region in which the proposed plant or modification would be constructed a copy of all materials the applicant submitted, a copy of the preliminary determination and a copy or summary of other materials, if any, considered in making the preliminary determination.
- (iv) Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed plant or modification would be constructed, of the application, the preliminary determination, the degree of increment consumption that is expected from the plant or modification, and the opportunity for comment at a public hearing as well as written public comment.
- (v) Send a copy of the notice of public comment to the applicant, the Administrator of EPA, and to officials and agencies having cognizance over the location where the proposed construction would occur as follows: The chief executives of the city and county where the plant or modification would be located, any comprehensive regional land use planning agency and any State, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the plant or modification.
- (vi) Provide opportunity for a public hearing for interested persons to appear and submit written or oral comments on the air quality impact of the plant or modification, alternatives to the plant or modification, the control technology required, and other appropriate considerations.
- (vii) Consider all written comments submitted within a time specified in the notice of public comment and all comments received at any public hearing(s) in making a final decision on the approvability of the application. No later than 10 days after the close of the public comment period, the applicant may submit a written response to any comments submitted by the public. The Department shall consider the applicant's response in making a final decision. The Department shall make all comments available for public inspection in the same locations where the Department made available preconstruction information relating to the proposed plant or

modification.

- (viii) Make a final determination whether construction should be approved, approved with conditions, or disapproved pursuant to this section.
- (ix) Notify the applicant in writing of the final determination and make such notification available for public inspection at the same location where the Department made available preconstruction information and public comments relating to the plant or modification.
  - (x) Notify EPA of every action related to the consideration of the permit.
- (e) **Exemptions**. The provisions of paragraph (d) shall not apply to a particular major stationary source or major modification if the source or modification would be a major stationary source or major modification only if fugitive emissions, to the extent quantifiable, are considered in calculating the potential to emit of the stationary source or modification and the source does not belong to any of the following categories:

g to any of the following categories:	
(	(A) Coal cleaning plants (with thermal dryers);
	(B) Kraft pulp mills;
	(C) Portland cement plants;
	(D) Primary zinc smelters;
	(E) Iron and steel mills;
	(F) Primary aluminum ore reduction plants;
	(G) Primary copper smelters;
	(H) Municipal incinerators capable of charging more than 250 tons of refuse per day;
	(I) Hydrofluoric, sulfuric, or nitric acid plants;
	(J) Petroleum refineries;
	(K) Lime plants;
	(L) Phosphate rock processing plants;
	(M) Coke oven batteries;
	(N) Sulfur recovery plants;
	(O) Carbon black plants (furnace process);
	(P) Primary lead smelters;
	(Q) Fuel conversion plants;

- (R) Sintering plants;
- (S) Secondary metal production plants;
- (T) Chemical process plants;
- (U) Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input;
- (V) Petroleum storage and transfer units with a total storage capacity exceeding 300,000 barrels;
  - (W) Taconite ore processing plants;
  - (X) Glass fiber processing plants;
  - (Y) Charcoal production plants;
- (Z) Fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input; and
- (AA) Any other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Clean Air Act.
- (f) Clean Unit Test for emissions units that are subject to LAER. An owner or operator of a major stationary source has the option of using the Clean Unit Test to determine whether emissions increases at a Clean Unit are part of a project that is a major modification according to the provisions in paragraphs (f)(1) through (9).
- (1) **Applicability**. The provisions of paragraph (f) apply to any emissions unit for which the Department has issued a major NSR permit within the past 10 years.
- (2) **General provisions for Clean Units**. The provisions in paragraphs (f)(2)(i) through (v) apply to a Clean Unit.
- (i) Any project for which the owner or operator begins actual construction after the effective date of the Clean Unit designation (as determined in accordance with paragraph (f)(4)) and before the expiration date (as determined in accordance with paragraph (f)(5)) will be considered to have occurred while the emissions unit was a Clean Unit.
- (ii) If a project at a Clean Unit does not cause the need for a change in the emission limitations or work practice requirements in the permit for the unit that were adopted in conjunction with LAER and the project would not alter any physical or operational characteristics that formed the basis for the LAER determination as specified in paragraph (f)(6)(iv), the emissions unit remains a Clean Unit.
- (iii) If a project causes the need for a change in the emission limitations or work practice requirements in the permit for the unit that were adopted in conjunction with LAER or the project would alter any physical or operational characteristics that formed the basis for the LAER determination as specified in paragraph (f)(6)(iv), then the emissions unit loses its designation as a Clean Unit upon issuance of the necessary permit revisions (unless the unit requalifies as a

Clean Unit pursuant to paragraph (f)(3)(iv)). If the owner or operator begins actual construction on the project without first applying to revise the emissions unit's permit, the Clean Unit designation ends immediately prior to the time when actual construction begins.

- (iv) A project that causes an emissions unit to lose its designation as a Clean Unit is subject to the applicability requirements of paragraphs (b)(1) through (4) and paragraph (b)(6) as if the emissions unit is not a Clean Unit.
- (v) Certain Emissions Units with PSD permits. For emissions units that meet the requirements of paragraphs (f)(2)(v)(A) and (B), the BACT level of emissions reductions and/or work practice requirements shall satisfy the requirement for LAER in meeting the requirements for Clean Units under paragraphs (f)(3) through (B). For these emissions units, all requirements for the LAER determination under paragraphs (f)(2)(ii) and (iii) shall also apply to the BACT permit terms and conditions. In addition, the requirements of paragraph (f)(7)(i)(B) do not apply to emissions units that qualify for Clean Unit status under this paragraph (f)(2)(v).
- (A) The emissions unit must have received a PSD permit within the last 10 years and such permit must require the emissions unit to comply with BACT.
- (B) The emissions unit must be located in an area that was redesignated as nonattainment for the relevant pollutant(s) after issuance of the PSD permit and before the effective date of the Clean Unit Test provisions in the area.
- (i) **Permitting requirement**. The emissions unit must have received a major NSR permit within the past 10 years. The owner or operator must maintain and be able to provide information that would demonstrate that this permitting requirement is met.
- (ii) Qualifying air pollution control technologies. Air pollutant emissions from the emissions unit must be reduced through the use of an air pollution control technology (which includes pollution prevention as defined under paragraph (b)(36) of Standard 7 or work practices) that meets both the following requirements in paragraphs (f)(3)(ii)(A) and (B).
- (A) The control technology achieves the LAER level of emissions reductions as determined through issuance of a major NSR permit within the past 10 years. However, the emissions unit is not eligible for Clean Unit designation if the LAER determination resulted in no requirement to reduce emissions below the level of a standard, uncontrolled, new emissions unit of the same type.
- (B) The owner or operator made an investment to install the control technology. For the purpose of this determination, an investment includes expenses to research the application of a pollution prevention technique to the emissions unit or expenses to apply a pollution

prevention technique to an emissions unit.

- (iii) Prior to using the Clean Units test, the facility shall notify the Department with a statement affirming that the conditions set out in paragraph (f)(3)(ii)(A) and (B) have been met in order to qualify as a Clean Unit.
- (iv) Re-qualifying for the Clean Unit designation. The emissions unit must obtain a new major NSR permit that requires compliance with the current-day LAER, and the emissions unit must meet the requirements in paragraphs (f)(3)(i) and (f)(3)(i).
- (4) **Effective date of the Clean Unit designation**. The effective date of an emissions unit's Clean Unit designation (that is, the date on which the owner or operator may begin to use the Clean Unit Test to determine whether a project at the emissions unit is a major modification) is determined according to the applicable paragraph (f)(4)(i) or (f)(4)(ii).
- (i) Original Clean Unit designation, and emissions units that re-qualify as Clean Units by implementing a new control technology to meet current-day LAER. The effective date is the date the emissions unit's air pollution control technology is placed into service, or 3 years after the issuance date of the major NSR permit, whichever is earlier, but no sooner than the date that provisions for the Clean Unit applicability test are approved by the Administrator for incorporation into the plan and become effective for the State.
- (ii) Emissions units that re-qualify for the Clean Unit designation using an existing control technology. The effective date is the date the new, major NSR permit is issued.
- (5) Clean Unit expiration. An emissions unit's Clean Unit designation expires (that is, the date on which the owner or operator may no longer use the Clean Unit Test to determine whether a project affecting the emissions unit is, or is part of, a major modification) according to the applicable paragraph (f)(5)(i) or (ii).
- (i) Original Clean Unit designation, and emissions units that re-qualify by implementing new control technology to meet current-day LAER. For any emissions unit that automatically qualifies as a Clean Unit under paragraphs (f)(3)(i) and (ii), the Clean Unit designation expires 10 years after the effective date, or the date the equipment went into service, whichever is earlier; or, it expires at any time the owner or operator fails to comply with the provisions for maintaining Clean Unit designation in paragraph (f)(7).
- (ii) Emissions units that re-qualify for the Clean Unit designation using an existing control technology. For any emissions unit that re-qualifies as a Clean Unit under paragraph (f)(3)(iv), the Clean Unit designation expires 10 years after the effective date; or, it expires any time the owner or operator fails to comply with the provisions for maintaining the Clean Unit Designation in paragraph (f)(7).
- (6) Required title V permit content for a Clean Unit. After the effective date of the Clean Unit designation, and in accordance with the provisions of Regulation 61-62.70, "Title V Operating Permit Program", but no later than when the title V permit is renewed, the title V permit for the major stationary source must include the following terms and conditions in paragraphs (f)(6)(i) through (vi) related to the Clean Unit.
- (i) A statement indicating that the emissions unit qualifies as a Clean Unit and identifying the pollutant(s) for which this Clean Unit designation applies.

- (ii) The effective date of the Clean Unit designation. If this date is not known when the Clean Unit designation is initially recorded in the title V permit (e.g., because the air pollution control technology is not yet in service), the permit must describe the event that will determine the effective date (e.g., the date the control technology is placed into service). Once the effective date is determined, the owner or operator must notify the Department of the exact date. This specific effective date must be added to the source's title V permit at the first opportunity, such as a modification, revision, reopening, or renewal of the title V permit for any reason, whichever comes first, but in no case later than the next renewal.
- (iii) **The expiration date of the Clean Unit designation**. If this date is not known when the Clean Unit designation is initially recorded into the title V permit (*e.g.*, because the air pollution control technology is not yet in service), then the permit must describe the event that will determine the expiration date (*e.g.*, the date the control technology is placed into service). Once the expiration date is determined, the owner or operator must notify the Department of the exact date. The expiration date must be added to the source's title V permit at the first opportunity, such as a modification, revision, reopening, or renewal of the title V permit for any reason, whichever comes first, but in no case later than the next renewal.
- (iv) All emission limitations and work practice requirements adopted in conjunction with the LAER, and any physical or operational characteristics that formed the basis for the LAER determination (e.g., possibly the emissions unit's capacity or throughput).
- (v) Monitoring, recordkeeping, and reporting requirements as necessary to demonstrate that the emissions unit continues to meet the criteria for maintaining the Clean Unit designation. (See paragraph (f)(7)).
- (vi) Terms reflecting the owner or operator's duties to maintain the Clean Unit designation and the consequences of failing to do so, as presented in paragraph (f)(7).
- (7) **Maintaining the Clean Unit designation**. To maintain the Clean Unit designation, the owner or operator must conform to all the restrictions listed in paragraphs (f)(7)(i) through (iii). This paragraph (f)(7) applies independently to each pollutant for which the emissions unit has the Clean Unit designation. That is, failing to conform to the restrictions for one pollutant affects Clean Unit designation only for that pollutant.
- (i) The Clean Unit must comply with the emission limitation(s) and/or work practice requirements adopted in conjunction with the LAER that is recorded in the major NSR permit, and subsequently reflected in the title V permit.
- (A) The owner or operator may not make a physical change in or change in the method of operation of the Clean Unit that causes the emissions unit to function in a manner that is inconsistent with the physical or operational characteristics that formed the basis for the LAER determination (e.g., possibly the emissions unit's capacity or throughput).
  - (B) The Clean Unit may not emit above a level that has been offset.
- (ii) The Clean Unit must comply with any terms and conditions in the title V permit related to the unit's Clean Unit designation.
  - (iii) The Clean Unit must continue to control emissions using the specific air pollution

control technology that was the basis for its Clean Unit designation. If the emissions unit or control technology is replaced, then the Clean Unit designation ends.

- (8) Offsets and netting at Clean Units. Emissions changes that occur at a Clean Unit must not be included in calculating a significant net emissions increase (that is, must not be used in a "netting analysis"), or be used for generating offsets unless such use occurs before the effective date of the Clean Unit designation, or after the Clean Unit designation expires; or, unless the emissions unit reduces emissions below the level that qualified the unit as a Clean Unit. However, if the Clean Unit reduces emissions below the level that qualified the unit as a Clean Unit, then, the owner or operator may generate a credit for the difference between the level that qualified the unit as a Clean Unit and the new emission limitation if such reductions are surplus, quantifiable, and permanent. For purposes of generating offsets, the reductions must also be federally enforceable. For purposes of determining creditable net emissions increases and decreases, the reductions must also be enforceable as a practical matter.
- (9) **Effect of redesignation on the Clean Unit designation**. The Clean Unit designation of an emissions unit is not affected by redesignation of the attainment status of the area in which it is located. That is, if a Clean Unit is located in an attainment area and the area is redesignated to nonattainment, its Clean Unit designation is not affected. Similarly, redesignation from nonattainment to attainment does not affect the Clean Unit designation. However, if an existing Clean Unit designation expires, it must re-qualify under the requirements that are currently applicable in the area.
- (g) Clean Unit provisions for emissions units that achieve an emission limitation comparable to LAER. An owner or operator of a major stationary source has the option of using the Clean Unit Test to determine whether emissions increases at a Clean Unit are part of a project that is a major modification according to the provisions in paragraphs (g)(1) through (11).
- (1) **Applicability**. The provisions of this paragraph (g) apply to emissions units which do not qualify as Clean Units under paragraph (f) of this regulation, but which are achieving a level of emissions control comparable to LAER, as determined by the Department in accordance with this paragraph (g).
- (2) **General provisions for Clean Units**. The provisions in paragraphs (g)(2)(i) through (iv) apply to a Clean Unit (designated under this paragraph (g)).
- (i) Any project for which the owner or operator begins actual construction after the effective date of the Clean Unit designation (as determined in accordance with paragraph (g)(5)) and before the expiration date (as determined in accordance with paragraph (g)(6)) will be considered to have occurred while the emissions unit was a Clean Unit.
- (ii) If a project at a Clean Unit does not cause the need for a change in the emission limitations or work practice requirements in the permit for the unit that have been determined (pursuant to paragraph (g)(4) of this regulation) to be comparable to LAER, and the project would not alter any physical or operational characteristics that formed the basis for determining that the emissions unit's control technology achieves a level of emissions control comparable to LAER as specified in paragraph (g)(8)(iv), the emissions unit remains a Clean Unit.
- (iii) If a project causes the need for a change in the emission limitations or work practice requirements in the permit for the unit that have been determined (pursuant to paragraph (g)(4)) to be comparable to LAER, or the project would alter any physical or operational characteristics

that formed the basis for determining that the emissions unit's control technology achieves a level of emissions control comparable to LAER as specified in paragraph (g)(8)(iv), then the emissions unit loses its designation as a Clean Unit upon issuance of the necessary permit revisions (unless the unit re-qualifies as a Clean Unit pursuant to paragraph (g)(3)(iv)). If the owner or operator begins actual construction on the project without first applying to revise the emissions unit's permit, the Clean Unit designation ends immediately prior to the time when actual construction begins.

- (iv) A project that causes an emissions unit to lose its designation as a Clean Unit is subject to the applicability requirements of paragraphs (b)(1) through (4) and paragraph (b)(6) as if the emissions unit were never a Clean Unit.
- (3) Qualifying or re-qualifying to use the Clean Unit applicability test. An emissions unit qualifies as a Clean Unit when the unit meets the criteria in paragraphs (g)(3)(i) through (iii). After the original Clean Unit designation expires in accordance with paragraph (g)(6) or is lost pursuant to paragraph (g)(2)(iii), such emissions unit may re-qualify as a Clean Unit under either paragraph (g)(3)(iv), or under the Clean Unit provisions in paragraph (f). To re-qualify as a Clean Unit under paragraph (g)(3)(iv), the emissions unit must obtain a new permit issued pursuant to the requirements in paragraphs (g)(7) and (8) and meet all the criteria in paragraph (g)(3)(iv). The Department will make a separate Clean Unit designation for each pollutant emitted by the emissions unit for which the emissions unit qualifies as a Clean Unit.
- (i) Qualifying air pollution control technologies. Air pollutant emissions from the emissions unit must be reduced through the use of air pollution control technology (which includes pollution prevention as defined under paragraph (b)(36) of Standard 7 or work practices) that meets both the following requirements in paragraphs (g)(3)(i)(A) and (B).
- (A) The owner or operator has demonstrated that the emissions unit's control technology is comparable to LAER according to the requirements of paragraph (g)(4). However, the emissions unit is not eligible for the Clean Unit designation if its emissions are not reduced below the level of a standard, uncontrolled emissions unit of the same type (e.g., if the LAER determinations to which it is compared have resulted in a determination that no control measures are required).
- (B) The owner or operator made an investment to install the control technology. For the purpose of this determination, an investment includes expenses to research the application of a pollution prevention technique to the emissions unit or to retool the unit to apply a pollution prevention technique.
- (ii) **Impact of emissions from the unit**. The Department must determine that the allowable emissions from the emissions unit will not cause or contribute to a violation of any national ambient air quality standard or PSD increment, or adversely impact an air quality related value (such as visibility) that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.
- (iii) **Date of installation**. An emissions unit may qualify as a Clean Unit even if the control technology, on which the Clean Unit designation is based, was installed before the date these provisions become effective. However, for such emissions units, the owner or operator must apply for the Clean Unit designation before a period not exceeding twenty-four months following the date these provisions become effective. For technologies installed after the plan requirements become effective, the owner or operator must apply for the Clean Unit designation at the time the

control technology is installed.

- (iv) **Re-qualifying as a Clean Unit**. The emissions unit must obtain a new permit (pursuant to requirements in paragraphs (g)(7) and (8)) that demonstrates that the emissions unit's control technology is achieving a level of emission control comparable to current-day LAER, and the emissions unit must meet the requirements in paragraphs (g)(3)(i)(A) and (g)(3)(ii).
- (4) **Demonstrating control effectiveness comparable to LAER**. The owner or operator may demonstrate that the emissions unit's control technology is comparable to LAER for purposes of paragraph (g)(3)(i) according to either paragraph (g)(4)(i) or (ii). Paragraph (g)(4)(iii) specifies the time for making this comparison.
- (i) Comparison to previous LAER determinations. The administrator maintains an online data base of previous determinations of RACT, BACT, and LAER in the RACT/BACT/LAER Clearinghouse (RBLC). The emissions unit's control technology is presumed to be comparable to LAER if it achieves an emission limitation that is at least as stringent as any one of the five best-performing similar sources for which a LAER determination has been made within the preceding 5 years, and for which information has been entered into the RBLC. The Department shall also compare this presumption to any additional LAER determinations of which it is aware, and shall consider any information on achieved-in-practice pollution control technologies provided during the public comment period, to determine whether any presumptive determination that the control technology is comparable to LAER is correct.
- (ii) The substantially-as-effective test. The owner or operator may demonstrate that the emissions unit's control technology is substantially as effective as LAER. In addition, any other person may present evidence related to whether the control technology is substantially as effective as LAER during the public participation process required under paragraph (g)(7). The Department shall consider such evidence on a case-by-case basis and determine whether the emissions unit's air pollution control technology is substantially as effective as LAER.

#### (iii) Time of comparison.

- (A) Emissions units with control technologies that are installed before the effective date of plan requirements implementing this paragraph. The owner or operator of an emissions unit whose control technology is installed before the effective date of plan requirements implementing this paragraph (g) may, at its option, either demonstrate that the emission limitation achieved by the emissions unit's control technology is comparable to the LAER requirements that applied at the time the control technology was installed, or demonstrate that the emission limitation achieved by the emissions unit's control technology is comparable to current-day LAER requirements. The expiration date of the Clean Unit designation will depend on which option the owner or operator uses, as specified in paragraph (g)(6).
- (B) Emissions units with control technologies that are installed after the effective date of plan requirements implementing this paragraph. The owner or operator must demonstrate that the emission limitation achieved by the emissions unit's control technology is comparable to current-day LAER requirements.
- (5) **Effective date of the Clean Unit designation**. The effective date of an emissions unit's Clean Unit designation (that is, the date on which the owner or operator may begin to use the Clean Unit Test to determine whether a project involving the emissions unit is a major modification) is the date that the permit required by paragraph (g)(7) is issued or the date that the

emissions unit's air pollution control technology is placed into service, whichever is later.

- (6) Clean Unit expiration. If the owner or operator demonstrates that the emission limitation achieved by the emissions unit's control technology is comparable to the LAER requirements that applied at the time the control technology was installed, then the Clean Unit designation expires 10 years from the date that the control technology was installed. For all other emissions units, the Clean Unit designation expires 10 years from the effective date of the Clean Unit designation, as determined according to paragraph (g)(5). In addition, for all emissions units, the Clean Unit designation expires any time the owner or operator fails to comply with the provisions for maintaining the Clean Unit designation in paragraph (g)(9).
- (7) **Procedures for designating emissions units as Clean Units**. The Department shall designate an emissions unit a Clean Unit only by issuing a permit through a permitting program that has been approved by the Administrator and that conforms with the requirements of 40 CFR 51.160 through 51.164 including requirements for public notice of the proposed Clean Unit designation and opportunity for public comment. Such permit must also meet the requirements in paragraph (g)(8).
- (8) **Required permit content**. The permit required by paragraph (g)(7) shall include the terms and conditions set forth in paragraphs (g)(8)(i) through (vi). Such terms and conditions shall be incorporated into the major stationary source's title V permit in accordance with the provisions of the applicable title V permit program under 40 CFR part 70 or 40 CFR part 71, but no later than when the title V permit is renewed.
- (i) A statement indicating that the emissions unit qualifies as a Clean Unit and identifying the pollutant(s) for which this designation applies.
- (ii) **The effective date of the Clean Unit designation**. If this date is not known when the Department issues the permit (*e.g.*, because the air pollution control technology is not yet in service), then the permit must describe the event that will determine the effective date (*e.g.*, the date the control technology is placed into service). Once the effective date is known, then the owner or operator must notify the Department of the exact date. This specific effective date must be added to the source's title V permit at the first opportunity, such as a modification, revision, reopening, or renewal of the title V permit for any reason, whichever comes first, but in no case later than the next renewal.
- (iii) The expiration date of the Clean Unit designation. If this date is not known when the Department issues the permit (e.g., because the air pollution control technology is not yet in service), then the permit must describe the event that will determine the expiration date (e.g., the date the control technology is placed into service). Once the expiration date is known, then the owner or operator must notify the Department of the exact date. The expiration date must be added to the source's title V permit at the first opportunity, such as a modification, revision, reopening, or renewal of the title V permit for any reason, whichever comes first, but in no case later than the next renewal.
- (iv) All emission limitations and work practice requirements adopted in conjunction with emission limitations necessary to assure that the control technology continues to achieve an emission limitation comparable to LAER, and any physical or operational characteristics that formed the basis for determining that the emissions unit's control technology achieves a level of emissions control comparable to LAER (e.g., possibly the emissions unit's capacity or throughput).

- (v) Monitoring, recordkeeping, and reporting requirements as necessary to demonstrate that the emissions unit continues to meet the criteria for maintaining its Clean Unit designation. (See paragraph (g)(9).)
- (vi) Terms reflecting the owner or operator's duties to maintain the Clean Unit designation and the consequences of failing to do so, as presented in paragraph (g)(9).
- (9) **Maintaining Clean Unit designation**. To maintain Clean Unit designation, the owner or operator must conform to all the restrictions listed in paragraphs (g)(9)(i) through (v). This paragraph (g)(9) applies independently to each pollutant for which the Department has designated the emissions unit a Clean Unit. That is, failing to conform to the restrictions for one pollutant affects the Clean Unit designation only for that pollutant.
- (i) The Clean Unit must comply with the emission limitation(s) and/or work practice requirements adopted to ensure that the control technology continues to achieve emission control comparable to LAER.
- (ii) The owner or operator may not make a physical change in or change in the method of operation of the Clean Unit that causes the emissions unit to function in a manner that is inconsistent with the physical or operational characteristics that formed the basis for the determination that the control technology is achieving a level of emission control that is comparable to LAER (e.g., possibly the emissions unit's capacity or throughput).
  - (iii) The Clean Unit may not emit above a level that has been offset.
- (iv) The Clean Unit must comply with any terms and conditions in the title V permit related to the unit's Clean Unit designation.
- (v) The Clean Unit must continue to control emissions using the specific air pollution control technology that was the basis for its Clean Unit designation. If the emissions unit or control technology is replaced, then the Clean Unit designation ends.
- (10) Offsets and Netting at Clean Units. Emissions changes that occur at a Clean Unit must not be included in calculating a significant net emissions increase (that is, must not be used in a "netting analysis"), or be used for generating offsets unless such use occurs before the effective date of plan requirements adopted to implement this paragraph (g) or after the Clean Unit designation expires; or, unless the emissions unit reduces emissions below the level that qualified the unit as a Clean Unit. However, if the Clean Unit reduces emissions below the level that qualified the unit as a Clean Unit, then the owner or operator may generate a credit for the difference between the level that qualified the unit as a Clean Unit and the emissions unit's new emission limitation if such reductions are surplus, quantifiable, and permanent. For purposes of generating offsets, the reductions must also be federally enforceable. For purposes of determining creditable net emissions increases and decreases, the reductions must also be enforceable as a practical matter.
- (11) **Effect of redesignation on the Clean Unit designation**. The Clean Unit designation of an emissions unit is not affected by redesignation of the attainment status of the area in which it is located. That is, if a Clean Unit is located in an attainment area and the area is redesignated to nonattainment, its Clean Unit designation is not affected. Similarly, redesignation from nonattainment to attainment does not affect the Clean Unit designation. However, if a Clean

Unit's designation expires or is lost pursuant to paragraphs (f)(2)(iii) and (g)(2)(iii), it must requalify under the requirements that are currently applicable.

- (h) **PCP exclusion procedural requirements**. PCPs shall be provided according to the provisions in paragraphs (h)(1) through (6).
- (1) Before beginning actual construction of a PCP project, the owner or operator shall satisfy the requirements of Regulation 61-62.1, Section II.A, "Construction Permit."
- (2) Any project that relies on the PCP exclusion must meet the requirements in paragraphs (h)(2)(i) and (ii).
- (i) **Environmentally beneficial analysis**. The environmental benefit from the emission reductions of pollutants regulated under the Clean Air Act must outweigh the environmental detriment of emissions increases in pollutants regulated under the Clean Air Act. A statement that a technology from paragraphs (c)(10)(A) through (F) is being used shall be presumed to satisfy this requirement.
- (ii) Air quality analysis. The emissions increases from the project will not cause or contribute to a violation of any national ambient air quality standard or PSD increment, or adversely impact an air quality related value (such as visibility) that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.
- (3) Content of notice or permit application. In the notice or permit application sent to the Department, the owner or operator must include, at a minimum, the information listed in paragraphs (h)(3)(i) through (v).
  - (i) A description of the project.
- (ii) The potential emissions increases and decreases of any pollutant regulated under the Clean Air Act and the projected emissions increases and decreases using the methodology in paragraph (b), that will result from the project, and a copy of the environmentally beneficial analysis required by paragraph (h)(2)(i).
- (iii) A description of monitoring and recordkeeping, and all other methods, to be used on an ongoing basis to demonstrate that the project is environmentally beneficial. Methods should be sufficient to meet the requirements in Regulation 61-62.70, "*Title V Operating Permit Program.*"
- (iv) A certification that the project will be designed and operated in a manner that is consistent with proper industry and engineering practices, in a manner that is consistent with the environmentally beneficial analysis and air quality analysis required by paragraphs (h)(2)(i) and (ii), with information submitted in the notice or permit application, and in such a way as to minimize, within the physical configuration and operational standards usually associated with the emissions control device or strategy, emissions of collateral pollutants.
- (v) Demonstration that the PCP will not have an adverse air quality impact (e.g., modeling, screening level modeling results, or a statement that the collateral emissions increase is included within the parameters used in the most recent modeling exercise) as required by paragraph (h)(2)(ii). An air quality impact analysis is not required for any pollutant which will not experience a significant emissions increase as a result of the project.

- (4) **Review process for listed projects**. Before beginning actual construction of a PCP project that is listed in paragraphs (c)(10)(A) through (F), the owner or operator shall meet the requirements of Regulation 61-62.1 Section II. A, "Construction Permit" and paragraphs (h)(2) and (h)(3) of this regulation.
- (5) **Permit process for unlisted projects**. Before beginning actual construction of a PCP project that is not listed in paragraphs (c)(10)(A) through (F) the owner or operator shall meet the requirements of paragraphs A. and G.5 of Regulation 61-62.1, Section II, "Construction Permit," paragraph (d)(6) and (d)(7) of this regulation, and (h)(2) and (h)(3) of this regulation.
- (6) **Operational requirements**. Upon installation of the PCP, the owner or operator must comply with the requirements of paragraphs (h)(6)(i) through (iii).
- (i) **General duty**. The owner or operator must operate the PCP in a manner consistent with proper industry and engineering practices, in a manner that is consistent with the environmentally beneficial analysis and air quality analysis required by paragraphs (h)(2)(i) and (ii), with information submitted in the notice or permit application required by paragraph (h)(3), and in such a way as to minimize, within the physical configuration and operational standards usually associated with the emissions control device or strategy, emissions of collateral pollutants.
- (ii) **Recordkeeping**. The owner or operator must maintain copies on site of the environmentally beneficial analysis, the air quality impacts analysis, and monitoring and other emission records to prove that the PCP operated consistent with the general duty requirements in paragraph (h)(6)(i).
- (iii) **Permit requirements**. The owner or operator must comply with any provisions in the plan-approved permit or title V permit related to use and approval of the PCP exclusion.
- (iv) **Generation of emission reduction credits**. Emission reductions created by a PCP shall not be included in calculating a significant net emissions increase, or be used for generating offsets, unless the emissions unit further reduces emissions after qualifying for the PCP exclusion (e.g., taking an operational restriction on the hours of operation). The owner or operator may generate a credit for the difference between the level of reduction which was used to qualify for the PCP exclusion and the new emission limitation if such reductions are surplus, quantifiable, and permanent. For purposes of generating offsets, the reductions must also be federally enforceable. For purposes of determining creditable net emissions increases and decreases, the reductions must also be enforceable as a practical matter.
- (i) **Actuals PALs**. The provisions in paragraphs (i)(1) through (15) govern actuals PALs.

#### (1) Applicability.

- (i) The Department may approve the use of an actuals PAL for any existing major stationary source (except as provided in paragraph (i)(1)(ii)) if the PAL meets the requirements in paragraphs (i)(1) through (15). The term "PAL" shall mean "actuals PAL" throughout paragraph (i).
- (ii) The Department shall not allow an actuals PAL for VOC or  $NO_x$  for any major stationary source located in an extreme ozone nonattainment area.

- (iii) Any physical change in or change in the method of operation of a major stationary source that maintains its total source-wide emissions below the PAL level, meets the requirements in paragraphs (i)(1) through (15), and complies with the PAL permit:
  - (A) Is not a major modification for the PAL pollutant;
- (B) Does not have to be approved through Regulation 61-62.5, Standard 7.1, "Nonattainment New Source Review"; however, will be reviewed through Regulation 61-62.1, Section II A. "Permit Requirements," and
- (C) Is not subject to the provisions in paragraph (d)(2)(D) (restrictions on relaxing enforceable emission limitations that the major stationary source used to avoid applicability of the nonattainment major NSR program).
- (iv) Except as provided under paragraph (i)(1)(iii)(C), a major stationary source shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.
- (2) **Definitions.** The definitions in paragraphs (i)(2)(i) through (xi) shall apply to actuals PALs consistent with paragraphs (i)(1) through (15). When a term is not defined in these paragraphs, it shall have the meaning given in paragraph (c) of this regulation; paragraph (b) of Regulation 61-62.5, Standard 7, "Prevention of Significant Deterioration" ("Standard 7"); or in the Clean Air Act.
- (i) **Actuals PAL** for a major stationary source means a PAL based on the baseline actual emissions (as defined in paragraph (c)(1)) of all emissions units (as defined in paragraph (b)(20) of Standard 7) at the source, that emit or have the potential to emit the PAL pollutant.
- (ii) **Allowable emissions** means "allowable emissions" as defined in paragraph (b)(3) of Standard 7, except as this definition is modified according to paragraphs (i)(2)(ii)(A) through (B).
- (A) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.
- (B) An emissions unit's potential to emit shall be determined using the definition in paragraph (b)(37) of Standard 7, except that the words "or enforceable as a practical matter" should be added after "federally enforceable."
- (iii) **Small emissions unit** means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in paragraph (c)(14) or in the Clean Air Act, whichever is lower.

#### (iv) Major emissions unit means:

- (A) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant in an attainment area; or
- (B) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as

defined by the Clean Air Act for nonattainment areas. For example, in accordance with the definition of major stationary source in section 182(c) of the Clean Air Act, an emissions unit would be a major emissions unit for VOC if the emissions unit is located in a serious ozone nonattainment area and it emits or has the potential to emit 50 or more tons of VOC per year.

- (v) **Plantwide applicability limitation (PAL)** means an emission limitation expressed in tons per year, for a pollutant at a major stationary source, that is enforceable as a practical matter and established source-wide in accordance with paragraphs (i)(1) through (i)(15).
- (vi) **PAL effective date** generally means the date of issuance of the PAL permit. However, the PAL effective date for an increased PAL is the date any emissions unit which is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (vii) **PAL effective period** means the period beginning with the PAL effective date and ending 10 years later.
- (viii) **PAL major modification** means, notwithstanding paragraphs (c)(6) and (8) (the definitions for major modification and net emissions increase), any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.
- (ix) **PAL permit** means the major NSR permit, the minor NSR permit, or the State operating permit under Regulation 61-62.1 Section II G, or the title V permit issued by the Department that establishes a PAL for a major stationary source.
- (x) **PAL pollutant** means the pollutant for which a PAL is established at a major stationary source.
- (xi) **Significant emissions unit** means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in paragraph (c)(13) or in the Clean Air Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in paragraph (i)(2)(iv).
- (3) **Permit application requirements**. As part of a permit application requesting a PAL, the owner or operator of a major stationary source shall submit the following information to the Department for approval:
- (i) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations or work practices apply to each unit.
- (ii) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup, shutdown and malfunction.
- (iii) The calculation procedures that the major stationary source owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph (i)(13)(i).

#### (4) General requirements for establishing PALs.

- (i) The Department is allowed to establish a PAL at a major stationary source, provided that at a minimum, the requirements in paragraphs (i)(4)(i)(A) through (G) are met.
- (A) The PAL shall impose an annual emission limitation in tons per year, that is enforceable as a practical matter, for the entire major stationary source. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major stationary source owner or operator shall show that the sum of the monthly emissions from each emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month average, rolled monthly). For each month during the first 11 months from the PAL effective date, the major stationary source owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.
- (B) The PAL shall be established in a PAL permit that meets the public participation requirements in paragraph (i)(5).
  - (C) The PAL permit shall contain all the requirements of paragraph (i)(7).
- (D) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major stationary source.
  - (E) Each PAL shall regulate emissions of only one pollutant.
  - (F) Each PAL shall have a PAL effective period of 10 years.
- (G) The owner or operator of the major stationary source with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in paragraphs (i)(12) through (14) for each emissions unit under the PAL through the PAL effective period.
- (ii) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant, which occur during the PAL effective period, creditable as decreases for purposes of offsets under paragraph (d)(1)(c) unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.
- (5) **Public participation requirement for PALs**. PALs for existing major stationary sources shall be established, renewed, or increased through a procedure that is consistent paragraph (d)(6) and (d)(7). The Department must address all material comments before taking final action on the permit.
- (6) **Setting the 10-year actuals PAL level**. (i) Except as provided in paragraph (i)(6)(ii), the actuals PAL level for a major stationary source shall be established as the sum of the baseline actual emissions (as defined in paragraph (c)(2)) of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under paragraph (c)(14) or under the Clean Air Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shut down after this 24-month period must be subtracted from the PAL

- level. The Department shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the Department is aware of prior to issuance of the PAL permit. For instance, if the source owner or operator will be required to reduce emissions from industrial boilers in half from baseline emissions of 60 ppm  $NO_X$  to a new rule limit of 30 ppm, then the permit shall contain a future effective PAL level that is equal to the current PAL level reduced by half of the original baseline emissions of such unit(s).
- (ii) For newly constructed units (which do not include modifications to existing units) on which operation began less than 24-months prior to the date of the PAL permit application, the emissions must be added to the PAL level in an amount equal to the potential to emit of the units.
- (7) Contents of the PAL permit. The PAL permit must contain, at a minimum, the information in paragraphs (i)(7)(i) through (x).
  - (i) The PAL pollutant and the applicable source-wide emission limitation in tons per year.
- (ii) The PAL permit effective date and the expiration date of the PAL (PAL effective period).
- (iii) Specification in the PAL permit that if a major stationary source owner or operator applies to renew a PAL in accordance with paragraph (i)(10) before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the Department.
- (iv) A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns and malfunctions.
- (v) A requirement that, once the PAL expires, the major stationary source is subject to the requirements of paragraph (i)(9).
- (vi) The calculation procedures that the major stationary source owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by paragraph (i)(13)(i).
- (vii) A requirement that the major stationary source owner or operator monitor all emissions units in accordance with the provisions under paragraph (i)(12).
- (viii) A requirement to retain the records required under paragraph (i)(13) on site. Such records may be retained in an electronic format.
- (ix) A requirement to submit the reports required under paragraph (i)(14) by the required deadlines.
- (x) Any other requirements that the Department deems necessary to implement and enforce the PAL.
- (8) **PAL effective period and reopening of the PAL permit**. The requirements in paragraphs (i)(8)(i) and (ii) apply to actuals PALs.

(i) PAL effective period. The Department shall specify a PAL effective period of 10 years.

## (ii) Reopening of the PAL permit.

- (A) During the PAL effective period, the Department must reopen the PAL permit to:
- (1) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL.
- (2) Reduce the PAL if the owner or operator of the major stationary source creates creditable emissions reductions for use as offsets under paragraph (d)(2).
- (3) Revise the PAL to reflect an increase in the PAL as provided under paragraph (i)(11).
- (B) The Department shall have discretion to reopen the PAL permit for the following:
- (1) Reduce the PAL to reflect newly applicable Federal requirements (for example, NSPS) with compliance dates after the PAL effective date.
- (2) Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and that the Department may impose on the major stationary source under the State Implementation Plan.
- (3) Reduce the PAL if the Department determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.
- (C) Except for the permit reopening in paragraph (i)(8)(ii)(A)(1) for the correction of typographical/calculation errors that do not increase the PAL level, all other reopenings shall be carried out in accordance with the public participation requirements of paragraph (i)(5).
- (9) **Expiration of a PAL**. Any PAL which is not renewed in accordance with the procedures in paragraph (i)(10) shall expire at the end of the PAL effective period, and the requirements in paragraphs (i)(9)(i) through (v) shall apply.
- (i) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the procedures in paragraphs (i)(9)(i)(A) through (B).
- (A) Within the time frame specified for PAL renewals in paragraph (i)(10)(ii), the major stationary source shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Department) by distributing the PAL allowable emissions for the major stationary source among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as

required under paragraph (i)(10)(v), such distribution shall be made as if the PAL had been adjusted.

- (B) The Department shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Department determines is appropriate.
- (ii) Each emissions unit(s) shall comply with the allowable emission limitation on a 12-month rolling basis. The Department may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS, CERMS, PEMS or CPMS to demonstrate compliance with the allowable emission limitation.
- (iii) Until the Department issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under paragraph (i)(9)(i)(A), the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.
- (iv) Any physical change or change in the method of operation at the major stationary source will be subject to the nonattainment major NSR requirements if such change meets the definition of major modification in paragraph (c)(6).
- (v) The major stationary source owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period except for those emission limitations that had been established pursuant to paragraph (d)(2)(D), but were eliminated by the PAL in accordance with the provisions in paragraph (i)(1)(iii)(C).

## (10) Renewal of a PAL.

- (i) The Department shall follow the procedures specified in paragraph (i)(5) in approving any request to renew a PAL for a major stationary source, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Department.
- (ii) **Application deadline**. A major stationary source owner or operator shall submit a timely application to the Department to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. This deadline for application submittal is to ensure that the permit will not expire before the permit is renewed. If the owner or operator of a major stationary source submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.
- (iii) **Application requirements**. The application to renew a PAL permit shall contain the information required in paragraphs (i)(10)(iii)(A) through (D).
  - (A) The information required in paragraphs (i)(3)(i) through (iii).
  - (B) A proposed PAL level.
  - (C) The sum of the potential to emit of all emissions units under the PAL (with

supporting documentation).

- (D) Any other information the owner or operator wishes the Department to consider in determining the appropriate level for renewing the PAL.
- (iv) **PAL adjustment**. In determining whether and how to adjust the PAL, the Department shall consider the options outlined in paragraphs (i)(10)(iv)(A) and (B). However, in no case may any such adjustment fail to comply with paragraph (i)(10)(iv)(C).
- (A) If the emissions level calculated in accordance with paragraph (i)(6) is equal to or greater than 80 percent of the PAL level, the Department may renew the PAL at the same level without considering the factors set forth in paragraph (i)(10)(iv)(B); or
- (B) The Department may set the PAL at a level that it determines to be more representative of the source's baseline actual emissions, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Department in its written rationale.

#### (C) Notwithstanding paragraphs (i)(10)(iv)(A) and (B),

- (1) If the potential to emit of the major stationary source is less than the PAL, the Department shall adjust the PAL to a level no greater than the potential to emit of the source; and
- (2) The Department shall not approve a renewed PAL level higher than the current PAL, unless the major stationary source has complied with the provisions of paragraph (i)(11) (increasing a PAL).
- (v) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during the PAL effective period, and if the Department has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.

#### (11) Increasing a PAL during the PAL effective period.

- (i) The Department may increase a PAL emission limitation only if the major stationary source complies with the provisions in paragraphs (i)(11)(i)(A) through (D).
- (A) The owner or operator of the major stationary source shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major stationary source's emissions to equal or exceed its PAL.
- (B) As part of this application, the major stationary source owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is

currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.

- (C) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in paragraph (i)(11)(i)(A), regardless of the magnitude of the emissions increase resulting from them (that is, no significant levels apply). These emissions unit(s) shall comply with any emissions requirements resulting from the nonattainment major NSR program process (for example, LAER), even though they have also become subject to the PAL or continue to be subject to the PAL.
- (D) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.
- (ii) The Department shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with paragraph (i)(11)(i)(B)), plus the sum of the baseline actual emissions of the small emissions units.
- (iii) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of paragraph (i)(5).

## (12) Monitoring requirements for PALs.

- (i) General Requirements.
- (A) Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.
- (B) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in paragraphs (i)(12)(ii)(A) through (D) and must be approved by the Department.
- (C) Notwithstanding paragraph (i)(12)(i)(B), you may also employ an alternative monitoring approach that meets paragraph (i)(12)(i)(A) if approved by the Department.
- (D) Failure to use a monitoring system that meets the requirements of this regulation renders the PAL invalid.
- (ii) Minimum Performance Requirements for Approved Monitoring Approaches. The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in paragraphs (i)(12)(iii) through (ix):
  - (A) Mass balance calculations for activities using coatings or solvents;

- (B) Continuous emissions monitoring system (CEMS);
- (C) Continuous parameter monitoring system (CPMS) or Predictive emissions monitoring system (PEMS); and
  - (D) Emission Factors.
- (iii) Mass Balance Calculations. An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:
- (A) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;
- (B) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and
- (C) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Department determines there is site-specific data or a site-specific monitoring program to support another content within the range.
- (iv) CEMS. An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (A) CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B; and
- (B) CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.
- (v) CPMS or PEMS. An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:
- (A) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and
- (B) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Department, while the emissions unit is operating.
- (vi) Emission factors. An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:
- (A) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;
  - (B) The emissions unit shall operate within the designated range of use for the

emission factor, if applicable; and

- (C) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the Department determines that testing is not required.
- (vii) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.
- (viii) Notwithstanding the requirements in paragraphs (i)(12)(iii) through (vii), where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Department shall, at the time of permit issuance:
- (A) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or
- (B) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.
- (ix) Re-validation. All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means approved by the Department. Such testing must occur at least once every 5 years after issuance of the PAL.

#### (13) Recordkeeping requirements.

- (i) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of paragraph (i) and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.
- (ii) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus 5 years:
- (A) A copy of the PAL permit application and any applications for revisions to the PAL; and
- (B) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.
- (14) **Reporting and notification requirements**. The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the Department in accordance with the applicable title V operating permit program. The reports shall meet the requirements in paragraphs (i)(14)(i) through (iii).
- (i) Semi-Annual Report. The semi-annual report shall be submitted to the Department within 30 days of the end of each reporting period. This report shall contain the information

required in paragraphs (i)(14)(i)(A) through (G).

- (A) The identification of owner and operator and the permit number.
- (B) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph (i)(13)(i).
- (C) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
- (D) A list of any emissions units modified or added to the major stationary source during the preceding 6-month period.
- (E) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
- (F) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by paragraph (i)(12)(vii).
- (G) A signed statement by the responsible official (as defined by Regulation 61-62.70, *Title V Operating Permit Program*) certifying the truth, accuracy, and completeness of the information provided in the report.
- (ii) Deviation report. The major stationary source owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to 40 CFR 70.6(a)(3)(iii)(B) shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing 40 CFR 70.6(a)(3)(iii)(B). The reports shall contain the following information:
  - (A) The identification of owner and operator and the permit number;
  - (B) The PAL requirement that experienced the deviation or that was exceeded;
  - (C) Emissions resulting from the deviation or the exceedance; and
- (D) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
- (iii) Re-validation results. The owner or operator shall submit to the Department the results of any re-validation test or method within 3 months after completion of such test or method.

# (15) Transition requirements.

- (i) The Department may not issue a PAL that does not comply with the requirements in paragraphs (aa)(1) through (15) after the date these provisions become effective.
- (ii) The Department may supersede any PAL which was established prior to the date of approval of the plan by the Administrator with a PAL that complies with the requirements of paragraphs (i)(1) through (15).
- (j) If any provision of this regulation, or the application of such provision to any person or circumstance, is held invalid, the remainder of this regulation, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

**R. 61-62.5, Standard No. 7 History -** *South Carolina State Register:* Vol. 29, Issue No. 6. (Doc. No. 2943), June 24, 2005.